

WHAT IS CLAIMED IS:

1. A holographic stereogram forming apparatus comprising:

a laser source for emitting a laser beam;

beam separating means for separating said laser beam emitted from said laser source into a reference beam and an object beam;

reference beam irradiating means for irradiating a hologram recording medium with said reference beam separated by said beam separating means;

a spatial beam modulator for displaying an image and modulating said object beam separated by said beam separating means;

a one-dimensional diffuser plate for diffusing said object beam modulated by said spatial beam modulator in a one-dimensional direction; and

an object projection optical system disposed between said spatial beam modulator and said one-dimensional diffuser plate, for processing said object beam modulated by said spatial beam modulator in such a manner that, in said one-dimensional direction of said one-dimensional diffuser plate, said image displayed by said spatial beam modulator is formed on said one-dimensional diffuser plate, and, in a direction

substantially orthogonal to said one-dimensional direction, said object beam is condensed on said hologram recording medium.

2. The holographic stereogram forming apparatus according to claim 1, wherein

said object projection optical system comprises a spherical lens system for forming said image displayed by said spatial beam modulator in said one-dimensional direction, and a cylindrical lens system for condensing said object beam into said direction substantially orthogonal to said one-dimensional direction.

3. The holographic stereogram forming apparatus according to claim 2, wherein

the condensing position of said object beam condensed into said direction substantially orthogonal to said one-dimensional direction can be regulated by regulating the spacing between said spherical lens system and said cylindrical lens system.

4. The holographic stereogram forming apparatus according to claim 1, further comprising:

means for shutting off said laser source;
a mechanism for intermittently feeding said hologram recording medium; and
a control mechanism for regulating the timings of

the display of said image by said spatial beam modulator
and the operation of said intermittent feeding mechanism.